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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/550,443	04/17/2000	Gordon Pack	081862.P174	1576

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EXAMINER

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/550,443

Applicant(s)

PACK ET AL.

Examiner

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. **Claims 1-17** as amended are still in consideration for this application. Applicant has amended claims **1, 3, 6, 8, 11, and 16**.
2. Examiner **withdraws** the drawing objection(s) for Office action filed **10/07/03**.
Examiner thanks applicant for making the necessary changes.
3. Examiner **withdraws** the specification objection(s) for Office action filed **10/07/03**.
Examiner thanks applicant for making the necessary changes.
4. Examiner **withdraws** the 112-second paragraph rejection(s) for Office action filed **10/07/03**. Examiner thanks applicant for making the necessary corrections to clarify the recited claimed subject matter and thus withdraws the rejection.
5. Examiner does **not withdraw** the anticipated rejection to *Varma* for Office action filed **10/07/03**. In response to applicant's arguments filed 02/09/04, applicant has amended the claims to further recite that the communication channel including a plurality of lines, wherein the change includes one or more lines of the plurality of lines becoming active and one or more lines of the plurality lines being broken. Applicant's amendment is supported, inter alia, at page 8, lines 5-15 and page 11, lines 11-25. In particular, applicant discloses monitoring more than one line (i.e., "pinging" each line) and specifically discloses only one line becoming inactive. As such, *Varma* meets the above-cited limitation at least at column 17, line 59 – column 18, line 9 with respect to "idle" (i.e., failed lines). Specifically, "the solution lies in periodically scanning the allocation table and reducing the allocations for connections that have not transmitted an RM cell within a timeout interval".

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6. Examiner **withdraws** the anticipated rejection to *Soumiya* Office action filed **10/07/03**.

Soumiya may be unclear or deficient in monitoring bandwidth changes in a variable bandwidth bi-directional communications channel. See new rejection below.

7. Examiner does **not withdraw** the obviousness rejection to *Varma* in view of *Soumiya* for Office action filed **10/07/03**. In addressing applicant's arguments in the response filed 02/09/04, see the above response for the anticipated rejection using the *Varma* reference.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claims 1-3, 6-8, and 11-13** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,359,863 B1 to *Varma et al.* ("*Varma*").

As to **claims 1, 6, and 11**, see figure 9, lines 1-7 of *Varma*. In particular, see lines 8 and 9 in figure 9 with respect to bandwidth. In addition, see column 17, line 59 – column 18, line 9 with respect to failed (i.e., idle) channels.

As to **claims 2, 7, and 12**, see figure 9, lines 5-7 in reference to column 17, lines 13-61. In addition, figure 5b, step 116 shows the new computation rate for the connection, while steps 118-122 show the new rate being fed back into the stream to be sent back to the resource.

As to **claims 3, 8, and 13**, see figure 5a in reference to steps 106-112 with respect to a minimum connection requirement (MCR). The MCR ensures that connections will always be maintained at a specific transmission rate (e.g., see column 15, lines 1-63).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 4-5, 9-10, 14-15 and 16-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,359,863 B1 to *Varma et al.* ("*Varma*") in view of U.S. Patent No. 5,696,764 to *Soumiya et al.* ("*Soumiya*").

As to **claims 4-5, 9-10, and 14-15**, *Varma* discloses a method for handling cells in an ATM switch that includes the monitoring of the available output bandwidth and changing the input rates if fluctuations should occur.

Varma is silent or deficient to teaching prioritizing cells over another in both the queuing and selecting of said cells.

Soumiya teaches the above-cited limitation at e.g., column 28, lines 9-43.

Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation of teaching prioritizing cells over another in both the queuing and selecting of said cells. In particular, one skilled in the art would have been motivated to perform the above-cited limitation in order to more fully maintain the optimal function of the ATM switch and to reduce the potential congestion

in both the short term and the long term. Specifically, *Varma* discloses handling ABR traffic using rate allocation. The background of *Varma* also discloses that it is well known in the art to handle additional services (e.g., see column 1, lines 50-55). *Soumiya* further clarifies how one skilled in the art is motivated to handle these different services by using prioritized queuing as is known in the art and taught by *Soumiya*. Thus the references in combination teach the further limitation of prioritizing cells over another in both the queuing and selecting of said cells. Further both references teach networking in general and more specifically using ATM and performing congestion control. Thus examiner notes a motivation to combine the subject matter of both references as a whole.

As to **claims 16-17**, *Varma* discloses in figure 1 one or more data sources as well as a digital switch. Also shown is a variable bandwidth bi-directional communication channel electronically coupled to the digital communication switch where the digital communications switch monitors the bandwidth change in the variable bandwidth bi-directional communication channel e.g., see columns 17-18 of *Varma*.

Varma may be silent or deficient to the further limitation “wherein the switch comprises a quality of service controller and data queues”. In particular, *Varma* teaches queues and a rate allocation processor 36, see e.g., figure 3.

Soumiya teaches the above-cited limitation as shown in figures 7 and 8.

Examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to include the further limitation wherein the switch comprises a quality of service controller and data queues. In particular, one skilled in the art would have been motivated to also use QoS in a controller to further provide prioritization of

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cells for scheduling e.g., see *Soumiya* column 22, lines 15-20. Thus *Soumiya* cures the above-cited deficiency by disclosing a need for also performing QoS in order to guarantee a rate for a specific connection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663

DWF 


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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 3/1-2008